

South Africa accords patent to an AI system

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In news-In a world first, South Africa accorded **patent to an Artificial Intelligence(AI) system relating to a food container based on fractal geometry.**

Why is this move unique & controversial?

- According to patent experts, granting a patent to an AI system is anything but mundane
- That's because the **inventor is not a human being – it is an artificial intelligence (AI) system called DABUS.**
- The innovation in question involves interlocking food containers that are easy for robots to grasp and stack.
- The patent application listing DABUS as the inventor was filed in patent offices around the world, including the U.S., Europe, Australia, and South Africa.
- But only South Africa granted the patent (Australia followed suit a few days later after a court judgment gave the go-ahead).
- South Africa's decision has received widespread backlash from intellectual property experts.

Why is the DABUS patent rejected by other countries?

The United States Patent and Trademark Office and the European Patent Office rejected these applications in the formal examination phase. They gave three reasons:

1. First, their **respective patent laws only provide for human inventors not AI** as indicated by the use of pronouns such as "him" and "her" in their text.
2. Second, **ideas, for the purposes of patents, require the element of "mental conception"** something of which only a human mind is capable.

3. Finally, inventorship comes with rights, which **AI is not legally capable of possessing.**

About DABUS

- DABUS stands for device for the autonomous bootstrapping of unified sentience.
- DABUS is an AI system **created by Stephen Thaler, a pioneer in the field of AI and programming.**
- It simulates human brainstorming and creates new inventions.
- DABUS is a particular type of AI, often referred to as “creativity machines” because they are capable of independent and complex functioning.
- This differs from everyday AI like Siri, the “voice” of Apple’s iPhones.

Stephen Thaler’s another AI

- Prior to DABUS, Thaler built another AI which created novel sheet music, and which he credited with inventing the cross-bristle toothbrush design.
- He filed a patent for the cross-bristle design, and it was granted, proving AI’s ability to generate truly novel inventions that meet the standards for patents.
- However, Thaler listed himself, rather than the AI, as the inventor at that time.

About Creative Machines

- Creativity machines can process and critically analyse data, learning from it. This process is known as machine learning.
- Once the machine learning phase has occurred, the machine is able to “autonomously” create without human intervention.
- As has been seen in the Covid pandemic, as just one example, AI is able to solve problems humans were unable to – and also much faster than people can.